

# Altbier

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **44**
- SRM **9**
- Style **Northern German Altbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.1 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12.1 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount         | Yield | EBC  |
|-------|--------------------|----------------|-------|------|
| Grain | Monachijski        | 2.6 kg (64.5%) | 80 %  | 16   |
| Grain | Strzegom Wiedeński | 1.4 kg (34.7%) | 79 %  | 10   |
| Grain | Strzegom Barwiący  | 0.03 kg (0.7%) | 68 %  | 1300 |

## Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Perle       | 45 g   | 60 min | 7 %        |
| Boil    | Hersbrucker | 20 g   | 40 min | 3 %        |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 11.5 g | ---        |